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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
MURRAY, DANIEL C	

ART UNIT	PAPER NUMBER
2443	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/616,051	OMAE ET AL.	
	Examiner	Art Unit	
	DANIEL C. MURRAY	2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 16** objected to because of the following informalities:

- **Claim 16,** line 7; claim recites an address stored in the "storing"; it is assumed for the purposes of examination "storing" is referring to the "node storage unit".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16, 20, and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. **Claims 20 and 24** are rejected by virtue of their dependency on **claim 16.**

Claims 16, 20, and 24 are rejected under 35 USC 101 since the claims are directed to non-statutory subject matter. **Claims 16, 20, and 24** recite a computer-readable storage medium which appears to cover both transitory and non-transitory embodiments. The United States Patent and Trademark Office (USPTO) is required to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations)

typically covers forms of non-transitory tangible media **and** transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. *See* MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim **must** be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The Examiner suggests that the Applicant add the limitation "non-transitory computer-readable storage medium" to the claims in order to properly render the claims in statutory form in view of their broadest reasonable interpretation in light of the originally filed specification. The Examiner also suggests that the specification be amended to include the term "non-transitory computer-readable storage medium" to avoid a potential objection to the specification for a lack of antecedent basis of the claimed terminology.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Segal (US Patent Publication # US 20030128693 A1)** in view of **Iyer et al. (US Patent # US 7,058,706 B1).**

a) Consider **claim 1,** Segal clearly shows and discloses, a node search method for searching for a new service node for providing a service to a mobile node, in a mobile communication system including a plurality of service nodes and the mobile node, each of the service nodes and the mobile node having a node storage unit configured to store addresses of service nodes (abstract, paragraph [0013], [0016]), the node search method comprising: transmitting a node search packet to search for the new service node from a search node, which searches for the new service node, to a search packet reception node having an address stored in the node storage unit of the search node (figure 3, paragraph [0013], [0020], [0021]); transmitting a node notice request packet from the search packet reception node to a peripheral node having an address stored in the node storage unit of the search packet reception node, in response to receiving the node search packet, the address of the peripheral

node not being stored in the node storage unit of the search node (figure 3, paragraph [0013], [0020], [0021]); returning a node notice packet from the search packet reception node to the search node, in response to receiving the node search packet (figure 3, paragraph [0013], [0020], [0021]); transmitting the node notice packet from the peripheral node to the search node, based only on a determination that the node notice request packet has been received by the peripheral node (figure 3, paragraph [0013], [0020], [0021]); detecting the new service node based on the returned node notice packet from the peripheral node, by the search node (figure 3, abstract, paragraph [0013], [0020], [0021]); and updating the node storage unit of the search node based on the new service node detected by the search node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]). However, Segal does not specifically disclose transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment, wherein Iyer et al. further discloses transmitting to the detected service node, by the search node, data for investigating node information concerning the detected service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Iyer et al. and Segal since both concern networked communications systems and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate determining the delay value and hop count, as taught by, Iyer et al. into the system of Segal et al. for the purpose of determining the number of hops and latency between two nodes, thereby allowing the determination and management of latency on the network between nodes.

b) Consider **claim 2,** Segal clearly show and disclose, a node, comprising: a node storage unit configured to store addresses of service nodes for providing a service to a mobile node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); a search packet creation unit configured to create a node search packet to search for a new service node (figure 3, paragraph [0013], [0020], [0021]); a communication unit configured to transmit the node search packet to a search packet reception node having an address stored in the node storage unit (figure 3, paragraph [0013], [0020], [0021]), to receive a node notice packet transmitted from the search packet reception node in response to receiving the node search packet (figure 3, paragraph [0013], [0020], [0021]), and to receive the node notice packet from a peripheral node which receives a node notice request packet from the search packet reception node (figure 3, paragraph [0013], [0020], [0021]), an address of the peripheral node not being stored in the node storage unit and the peripheral node being configured to transmit the node notice packet to the node based only on a determination that the node notice request packet has been received by the peripheral node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); a detection unit configured to detect the new service node based on the node notice packet returned from the peripheral node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); and an update unit configured to update the node storage unit based on the new service node detected by the detection unit (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]). However, Segal does not specifically disclose the communication unit is configured to transmit, to the detected new service

node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment, wherein communication unit is configured to transmit, to the detected new service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Iyer et al. and Segal since both concern networked communications systems and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate determining the delay value and hop count, as taught by, Iyer et al. into the system of Segal et al. for the purpose of determining the number of hops and latency between two nodes, thereby allowing the determination and management of latency on the network between nodes.

e) Consider **claim 3,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a data creation unit configured to create the data for investigating node information detected by the detection unit, the data being transmitted to the detected new service node (Segal; abstract, paragraph [0013], [0016]), wherein the node storage unit is configured to store the node information (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]), the communication unit is configured to transmit the data created by the data creation unit, and to receive response data returned in response to the data by the detected new service node (Segal; figure 3, paragraph [0013], [0016], [0020], [0021]), and the update unit is

configured to update the node storage unit based on the returned response data (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

d) Consider **claim 4,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, wherein node information concerning the new service node is included in the node notice packet (Segal; figure 3, paragraph [0013], [0020], [0021]), the node storage unit is configured to store the node information (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]), and the update unit is configured to update the node storage unit based on the returned node notice packet (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

e) Consider **claim 5,** and **as applied to claim 3 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 3, wherein the node storage unit is configured to store the addresses of the service nodes and the node information according to a predetermined criterion (Segal; paragraph [0013], [0016], [0020], [0021]).

f) Consider **claim 6,** and **as applied to claim 4 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 4, further comprising: a determination unit configured to determine inter-node information between the search node and the peripheral node according to inter-node information between the search node and the search packet reception node and inter-node information between the search packet reception node and the peripheral node based on the node notice packet (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]), wherein the update unit is configured to update the node storage unit based on the inter-node information between the search node and the peripheral node determined by the determination unit (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

g) Consider **claim 7,** and **as applied to claim 2 above,** Segal as modified by Iyer et al.

clearly show and disclose, the node of claim 2, further comprising: a notice packet creation unit configured to create the node notice packet by accessing the node storage unit (Segal; figure 3, paragraph [0013], [0020], [0021]), wherein the communication unit is configured to transmit the node notice packet created by the notice packet creation unit (Segal; figure 3, paragraph [0013], [0020], [0021]).

h) Consider **claim 8,** and **as applied to claim 7 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 7, wherein the notice packet creation unit is configured to create the node notice packet that is passed through the peripheral node (Segal; figure 3, paragraph [0020], [0021]).

i) Consider **claim 9,** and **as applied to claim 7 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 7, wherein the notice packet creation unit is configured to create the node notice packet when the communication unit has received at least one of the node search packet, the node notice packet, and the node notice request packet for requesting return of the node notice packet (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

j) Consider **claim 10,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a request packet creation unit configured to create the node notice request packet for requesting the peripheral node to return the node notice packet (Segal; figure 3, paragraph [0013], [0016], [0020], [0021]), wherein the communication unit is configured to transmit the node notice request packet created by the request packet creation unit (Segal; figure 3, paragraph [0013], [0020], [0021]).

k) Consider **claim 11,** and **as applied to claim 10 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 10, wherein the request packet creation unit is configured to create the node notice request packet when the communication unit has received at

least one of the node search packet, the node notice packet, and the node notice request packet (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

l) Consider **claim 12,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a request packet creation unit configured to create a node registration request packet for requesting registration in the node storage unit of another service node (Segal; figure 3, paragraph [0013], [0016], [0020], [0021]), wherein the communication unit is configured transmit the node registration request packet created by the request packet creation unit (Segal; figure 3, paragraph [0013], [0020], [0021]).

m) Consider **claim 13,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, wherein the communication unit is configured to receive a node registration request packet for requesting registration in the node storage unit of another service node (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]), and the update unit is configured to update the node storage unit based on the node registration request packet (Segal; figure 3, abstract, paragraph [0013], [0016], [0020], [0021]).

n) Consider **claim 14,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a selection criterion holding unit configured to hold a selection criterion for selecting a service node to be used (Segal; paragraph [0013], [0016], [0020], [0021]); and a selection unit configured to access the node storage unit and to select the service node to be used, based on the selection criterion held in the selection criterion holding unit (Segal; paragraph [0013], [0016], [0020], [0021]).

o) Consider **claim 15,** Segal clearly show and disclose, a mobile communication system, comprising: a search node configured to search for a new service node for providing a service to a mobile node by transmitting a node search packet in order to search for the new service node (figure

3, abstract, paragraph [0013], [0016], [0020], [0021]); a search packet reception node configured to receive the node search packet transmitted from the search node (figure 3, paragraph [0013], [0020], [0021]); and a peripheral node other than the search packet reception node (figure 3, paragraph [0020], [0021]), wherein the search node includes a node storage unit configured to store addresses of service nodes (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); a search packet creation unit configured to create the node search packet to search for the new service node (figure 3, paragraph [0013], [0020], [0021]); a communication unit configured to transmit the node search packet to the search packet reception node having an address stored in the node storage unit (figure 3, paragraph [0013], [0020], [0021]), to receive a node notice packet transmitted from the search packet reception node in response to receiving the node search packet (figure 3, paragraph [0013], [0020], [0021]), and to receive the node notice packet from a peripheral node which receives a node notice request packet from the search packet reception node (figure 3, paragraph [0013], [0020], [0021]), an address of the peripheral node not being stored in the node storage unit and the peripheral node being configured to transmit the node notice packet to the search node based only on a determination that the node notice request packet has been received by the peripheral node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); a detection unit configured to detect the new service node based on the node notice packet returned from the peripheral node (figure 3, abstract, paragraph [0013], [0020], [0021]); and an update unit configured to update the node storage unit based on the new service node detected by the detection unit (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]). However, Segal does not specifically disclose the communication unit is configured to transmit, to the detected new service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment, wherein the communication unit is configured to transmit, to the detected new service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Iyer et al. and Segal since both concern networked communications systems and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate determining the delay value and hop count, as taught by, Iyer et al. into the system of Segal et al. for the purpose of determining the number of hops and latency between two nodes, thereby allowing the determination and management of latency on the network between nodes.

p) Consider **claim 16,** Segal clearly shows and discloses, a computer-readable storage medium, including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to function as a node and to perform a method (figure 3, paragraph [0013], [0016]), comprising: storing addresses of service nodes for providing a service to a mobile node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); creating a node search packet to search for a new service node (figure 3, paragraph [0013], [0020], [0021]); transmitting the node search packet to a search packet reception node having an address stored in the storing (figure 3, paragraph [0013], [0020], [0021]); receiving a node notice packet transmitted from the search packet reception node in response to receiving the node search packet (figure 3, paragraph [0013], [0020], [0021]); receiving the node notice packet from a peripheral node which receives a node notice

request packet from the search packet reception node (figure 3, paragraph [0013], [0020], [0021]), an address of the peripheral node not being stored in the node storage unit and the peripheral node being configured to transmit the node notice packet to the node based only on a determination that the node notice request packet has been received by the peripheral node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]); detecting the new service node based on the node notice packet returned from the peripheral node (figure 3, abstract, paragraph [0013], [0020], [0021]); and updating the addresses based on the detected new service node (figure 3, abstract, paragraph [0013], [0016], [0020], [0021]). However, Segal does not specifically disclose transmitting to the detected new service node, by the search node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment, wherein Iyer et al. further transmitting to the detected new service node, by the search node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Iyer et al. and Segal since both concern networked communications systems and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate determining the delay value and hop count, as taught by, Iyer et al. into the system of Segal et al. for the purpose of determining the number of hops and latency

between two nodes, thereby allowing the determination and management of latency on the network between nodes.

q) Consider **claim 17,** and **as applied to claim 1 above,** Segal as modified by Iyer et al. clearly show and disclose, the node search method of claim 1, wherein the updating step comprises updating the node storage unit to include an address of the new service node (Segal, abstract, paragraph [0013], [0020]).

r) Consider **claim 18,** and **as applied to claim 2 above,** Segal as modified by Iyer et al. clearly show and disclose, the node of claim 2, wherein the update unit is configured to update the node storage unit to include an address of the new service node (Segal, abstract, paragraph [0013], [0020]).

s) Consider **claim 19,** and **as applied to claim 15 above,** Segal as modified by Iyer et al. clearly show and disclose, the mobile communication system of claim 15, wherein the update unit is configured to update the node storage unit to include an address of the new service node (Segal, abstract, paragraph [0013], [0020]).

t) Consider **claim 20,** and **as applied to claim 16 above,** Segal as modified by Iyer et al. clearly show and disclose, the computer-readable storage medium of claim 16, wherein the updating step comprises updating the addresses to include an address of the new service node(Segal, abstract, paragraph [0013], [0020]).

u) Consider **claim 21,** and **as applied to claim 1 above,** Segal as modified by Iyer et al. clearly show and disclose, the node search method of claim 1, wherein the transmitting step comprises transmitting the node notice packet from the peripheral node directly to the search node (Segal, figure 3, abstract, paragraph [0020], [0021]).

v) Consider **claim 22,** and **as applied to claim 2 above,** Segal as modified by Iyer et al.

clearly show and disclose, the node of claim 2, wherein the communication unit is configured to receive the node notice packet directly from the peripheral node (Segal, figure 3, abstract, paragraph [0020], [0021]).

w) Consider **claim 23,** and **as applied to claim 15 above,** Segal as modified by Iyer et al. clearly show and disclose, the mobile communication system of claim 15, wherein the communication unit is configured to receive the node notice packet directly from the peripheral node (Segal, figure 3, abstract, paragraph [0020], [0021]).

x) Consider **claim 24,** and **as applied to claim 16 above,** Segal as modified by Iyer et al. clearly show and disclose, the computer-readable storage medium of claim 16, wherein the receiving step comprises receiving the node notice packet directly from the peripheral node (Segal, figure 3, abstract, paragraph [0020], [0021]).

Response to Arguments

7. Applicant's arguments with respect to **claims 1-24** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2010/0030905 A1
- US 2009/0319663 A1
- US 7,668,903 B2

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MURRAY whose telephone number is 571-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571)-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. C. M./
Examiner, Art Unit 2443

/Tonia LM Dollinger/
Supervisory Patent Examiner, Art Unit 2443